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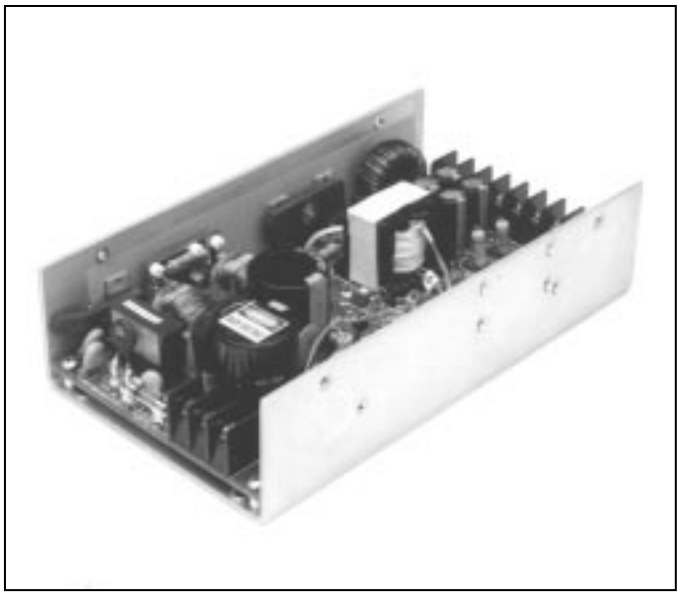
flexibility SERIES

Digital POWER CORPORATION

UP300 Series 115/230 VAC Auto-Selectable Input 300 Watt Switchers

- 75% typical efficiency
- FCC and VDE class A EMI filter
- Up to 2 outputs
- Compact 8" x 4.5" x 2" size
- UL, cUL, TUV and CE
- CB Test Certificate and Report
- Optional cover
- Optional power fail/power good signal



Jameco Part Number 204581

The UP300 series are economical, high efficiency open frame switchers that deliver up to 300W continuous or 325W peak output power from one to two outputs. The 115/230Vac auto-selectable input allows them to be used worldwide.

The UP300 is one of the *flexibility* series. In addition to the models listed on this sheet, many potential models are available that include full safety agency approval and do not require any non-recurring engineering (NRE) charge. Prototype delivery is just a few weeks.

Flexibility options include a cover, power fail/ power good signal and an isolated V2 output. Output voltage options are given in the table below. Fully custom models are also available. Contact the factory for details.

The UP300 is also available as the SP300 series, which is jumper-selectable between 115Vac and 230Vac.

Specifications are subject to change without prior notice.

Available Models

Model Number[1]	Output	Output Voltage	Output Current Ratings Min[1]	Max[2]	Max[3]	Peak[4]
UPF300-105	V1	+ 5V	1A	30A	50A	55A
UPF300-112	V1	+12V	1A	12A	25A	27A
UPF300-115	V1	+15V	1A	10A	20A	21.5A
UPF300-124	V1	+24V	0.5A	6A	12.5A	13.5A
UPF300-148	V1	+48V	0.2A	3.1A	6.2A	6.7A
UPF300-201	V1	+5V	1A	25A	40A	44A
	V2	+12V	0.2A	8A	12A	15A
Modified standard *flexibility* output options[5]	V1	±2.5V to ±48V[6]		25A	40A	50A[8]
	V2	±2.0V to ±48V[7]		8A	8A	

Notes:

[1] At least 20% of maximum output current (Im) is required to maintain stated regulation.

[2] Convection cooling, 150W maximum

[3] Forced air cooling, 300W maximum

[4] Peak output, 30 sec maximum

[5] The UP300 series allows very fast *flexible* modified standard design changes within these parameters without non-recurring engineering charges and while retaining safety agency approvals. Please contact the factory for details.

[6] Can be specified in 0.1V increments

[7] Can be specified in 0.75V increments

[8] Single output models only

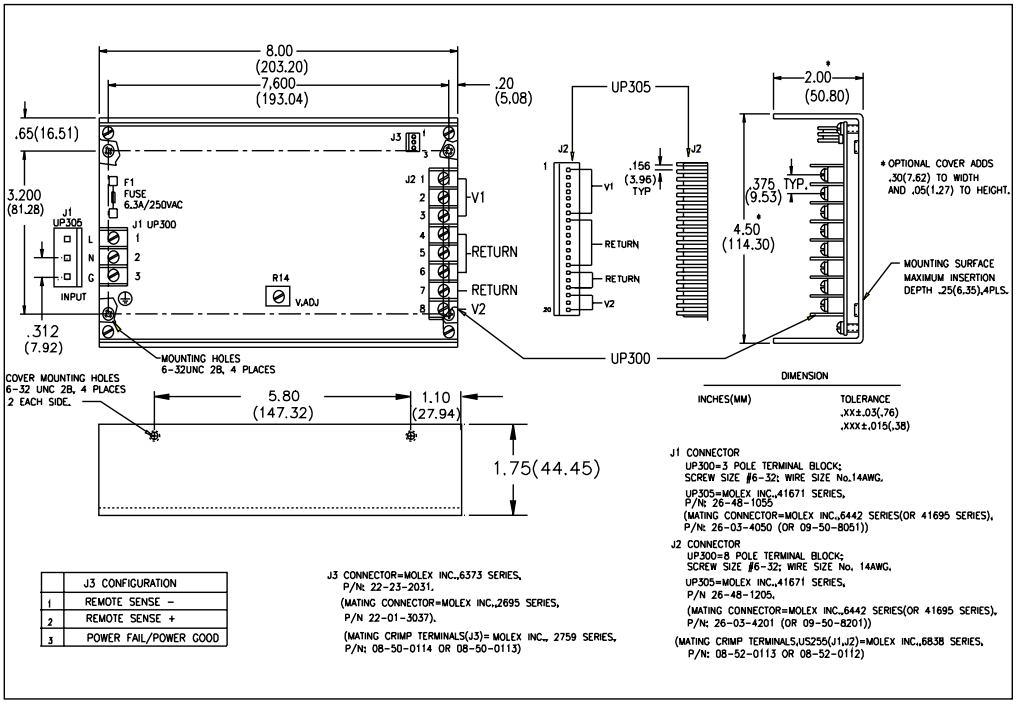
[9] Operational extremes per safety agency testing

Specifications

Specifications are typical at 25°C unless otherwise designated.

Parameter	Limits
Input	
Input Voltage Range	90-250Vac rated 81-132, 180-265Vac operation, auto-selecting[9]
Input Frequency	47 to 63Hz
Input Operating Current	5.9A rms @ 90Vac input, 300W output
Input Surge Current	25A max, cold start @ 25˚C, 250Vac
Efficiency	75% typ at 115Vac input, full power
Output	
Output Power	150W, natural convection cooling 300W, 28CFM forced air cooling 325W peak
Line Regulation	±0.2%, V_{in} (min) to V_{in} (max)
Load Regulation	±1% (V1, 20% to 100% I_m) ±5% (V2, 20% to 100% I_m)
Cross Regulation	±0.5% (V1, 20% to 100% I_m on V2) ±5% (V2, 50% to 100% I_m on V1)
Noise and Ripple	0.5% max RMS, 1% max P-P, on V1 or V2 with full load
Power up Overshoot	5% max, all outputs
Transient Response	V1, for 25% to 75% I_m change, 5% maximu deviation with recovery to 1% within 250μS
Hold-up time	16mS @ 115Vac input, 300W output

Parameter	Limits
Output *(cont'd)*	**Control**
Power Up Overshoot	5% max, all outputs
Transient Response	for 25% to 75% I_o change, 5% maximum deviation, with recovery to 1% within 500μS
Overvoltage Protection Threshold	130% typical of Vout, all outputs
Power Limit Point	125% typical of maximum rated power
Control	
Remote Sense Voltage Drop	0.25V max (each lead)
Environmental	
Operating Temperature Range (full power)	0°C to +50°C
Operating Temperature Range (extended range)	0°C to +70°C Derate linearly from full power at +50°C to half power at +70°C
Storage Temperature Range	−25°C to +85°C
Relative Humidity	5% to 95%, non-condensing
Vibration	0.75G peak, 5Hz to 500Hz. Test three orthogonal axes at 1 octave/min, 5 min dwell at four major resonances
MTBF	190,000 hours typical calculated per MIL STD 217 F, 30˚C ambient
Weight	2.1 lbs. (0.95 kg)



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